

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/686,529

Source:

1FW/6

Date Processed by STIC:

7/25/05

# ***ENTERED***



IFW16

## RAW SEQUENCE LISTING

DATE: 07/25/2005

PATENT APPLICATION: US/10/686,529

TIME: 09:03:02

Input Set : A:\10686529.txt

Output Set: N:\CRF4\07252005\J686529.raw

```

3 <110> APPLICANT: Hellinga, Homme W.
4   Looger, Loren L.
6 <120> TITLE OF INVENTION: Biosensor
8 <130> FILE REFERENCE: 1579-863
10 <140> CURRENT APPLICATION NUMBER: US 10/686,529
11 <141> CURRENT FILING DATE: 2003-10-16
13 <150> PRIOR APPLICATION NUMBER: US 60/418,359
14 <151> PRIOR FILING DATE: 2002-10-16
16 <160> NUMBER OF SEQ ID NOS: 3
18 <170> SOFTWARE: MS Word
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 226
22 <212> TYPE: PRT
23 <213> ORGANISM: Escherichia coli
25 <400> SEQUENCE: 1
27 Ala Asp Lys Lys Leu Val Val Ala Thr Asp Thr Ala Phe Val Pro Phe
28 1          5          10          15
30 Glu Phe Lys Gln Gly Asp Lys Tyr Val Gly Phe Asp Val Asp Leu Trp
31          20          25          30
33 Ala Ala Ile Ala Lys Glu Leu Lys Leu Asp Tyr Glu Leu Lys Pro Met
34          35          40          45
36 Asp Phe Ser Gly Ile Ile Pro Ala Leu Gln Thr Lys Asn Val Asp Leu
37          50          55          60
39 Ala Leu Ala Gly Ile Thr Ile Thr Asp Glu Arg Lys Lys Ala Ile Asp
40 65          70          75          80
42 Phe Ser Asp Gly Tyr Tyr Lys Ser Gly Leu Leu Val Met Val Lys Ala
43          85          90          95
45 Asn Asn Asn Asp Val Lys Ser Val Lys Asp Leu Asp Gly Lys Val Val
46          100         105         110
48 Ala Val Lys Ser Gly Thr Gly Ser Val Asp Tyr Ala Lys Ala Asn Ile
49          115         120         125
51 Lys Thr Lys Asp Leu Arg Gln Phe Pro Asn Ile Asp Asn Ala Tyr Met
52          130         135         140
54 Glu Leu Gly Thr Asn Arg Ala Asp Ala Val Leu His Asp Thr Pro Asn
55 145         150         155         160
57 Ile Leu Tyr Phe Ile Lys Thr Ala Gly Asn Gly Gln Phe Lys Ala Val
58          165         170         175
60 Gly Asp Ser Leu Glu Ala Gln Gln Tyr Gly Ile Ala Phe Pro Lys Gly
61          180         185         190
63 Ser Asp Glu Leu Arg Asp Lys Val Asn Gly Ala Leu Lys Thr Leu Arg
64          195         200         205
66 Glu Asn Gly Thr Tyr Asn Glu Ile Tyr Lys Lys Trp Phe Gly Thr Glu
67          210         215         220

```

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69 Pro Lys

70 225

73 &lt;210&gt; SEQ ID NO: 2

74 &lt;211&gt; LENGTH: 238

75 &lt;212&gt; TYPE: PRT

76 &lt;213&gt; ORGANISM: Escherichia coli

78 &lt;400&gt; SEQUENCE: 2

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80 Ala Ile Pro Gln Asn Ile Arg Ile Gly Thr Asp Pro Thr Tyr Ala Pro
81 1           5           10           15
83 Phe Glu Ser Lys Asn Ser Gln Gly Glu Leu Val Gly Phe Asp Ile Asp
84           20           25           30
86 Leu Ala Lys Glu Leu Cys Lys Arg Ile Asn Thr Gln Cys Thr Phe Val
87           35           40           45
89 Glu Asn Pro Leu Asp Ala Leu Ile Pro Ser Leu Lys Ala Lys Lys Ile
90           50           55           60
92 Asp Ala Ile Met Ser Ser Leu Ser Ile Thr Glu Lys Arg Gln Gln Glu
93 65           70           75           80
95 Ile Ala Phe Thr Asp Lys Leu Tyr Ala Ala Asp Ser Arg Leu Val Val
96           85           90           95
98 Ala Lys Asn Ser Asp Ile Gln Pro Thr Val Glu Ser Leu Lys Gly Lys
99           100          105          110
101 Arg Val Gly Val Leu Gln Gly Thr Thr Gln Glu Thr Phe Gly Asn Glu
102           115          120          125
104 His Trp Ala Pro Lys Gly Ile Glu Ile Val Ser Tyr Gln Gly Gln Asp
105           130          135          140
107 Asn Ile Tyr Ser Asp Leu Thr Ala Gly Arg Ile Asp Ala Ala Phe Gln
108 145          150          155          160
110 Asp Glu Val Ala Ala Ser Glu Gly Phe Leu Lys Gln Pro Val Gly Lys
111           165          170          175
113 Asp Tyr Lys Phe Gly Gly Pro Ser Val Lys Asp Glu Lys Leu Phe Gly
114           180          185          190
116 Val Gly Thr Gly Met Gly Leu Arg Lys Glu Asp Asn Glu Leu Arg Glu
117           195          200          205
119 Ala Leu Asn Lys Ala Phe Ala Glu Met Arg Ala Asp Gly Thr Tyr Glu
120           210          215          220
122 Lys Leu Ala Lys Lys Tyr Phe Asp Phe Asp Val Tyr Gly Gly
123 225          230          235

```

126 &lt;210&gt; SEQ ID NO: 3

127 &lt;211&gt; LENGTH: 275

128 &lt;212&gt; TYPE: PRT

129 &lt;213&gt; ORGANISM: Escherichia coli

131 &lt;400&gt; SEQUENCE: 3

```

133 Met Ala Gly Ser Thr Leu Asp Lys Ile Ala Lys Asn Gly Val Ile Val
134 1           5           10           15
136 Val Gly His Arg Glu Ser Ser Val Pro Phe Ser Tyr Tyr Asp Asn Gln
137           20           25           30
139 Gln Lys Val Val Gly Tyr Ser Gln Asp Tyr Ser Asn Ala Ile Val Glu
140           35           40           45
142 Ala Val Lys Lys Lys Leu Asn Lys Pro Asp Leu Gln Val Lys Leu Ile

```

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```

143      50      55      60
145 Pro Ile Thr Ser Gln Asn Arg Ile Pro Leu Leu Gln Asn Gly Thr Phe
146 65      70      75      80
148 Asp Phe Glu Cys Gly Ser Thr Thr Asn Asn Val Glu Arg Gln Lys Gln
149      85      90      95
151 Ala Ala Phe Ser Asp Thr Ile Phe Val Val Gly Thr Arg Leu Leu Thr
152      100      105      110
154 Lys Lys Gly Gly Asp Ile Lys Asp Phe Ala Asn Leu Lys Asp Lys Ala
155      115      120      125
157 Val Val Val Thr Ser Gly Thr Thr Ser Glu Val Leu Leu Asn Lys Leu
158      130      135      140
160 Asn Glu Glu Gln Lys Met Asn Met Arg Ile Ile Ser Ala Lys Asp His
161 145      150      155      160
163 Gly Asp Ser Phe Arg Thr Leu Glu Ser Gly Arg Ala Val Ala Phe Met
164      165      170      175
166 Met Asp Asp Ala Leu Leu Ala Gly Glu Arg Ala Lys Ala Lys Lys Pro
167      180      185      190
169 Asp Asn Trp Glu Ile Val Gly Lys Pro Gln Ser Gln Glu Ala Tyr Gly
170      195      200      205
172 Cys Met Leu Arg Lys Asp Asp Pro Gln Phe Lys Lys Leu Met Asp Asp
173      210      215      220
175 Thr Ile Ala Gln Val Gln Thr Ser Gly Glu Ala Glu Lys Trp Phe Asp
176 225      230      235      240
178 Lys Trp Phe Lys Asn Pro Ile Pro Pro Lys Asn Leu Asn Met Asn Phe
179      245      250      255
181 Glu Leu Ser Asp Glu Met Lys Ala Leu Phe Lys Glu Pro Asn Asp Lys
182      260      265      270
184 Ala Leu Asn
185      275

```

**VERIFICATION SUMMARY**

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